

(U.S.)



Attorney Docket No.: UK03-002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): COTTER, DAVID, et al  
Serial No.: 10/768569  
Filed: 1/29/2004  
For: OPTICAL COMMUNICATION  
NETWORKS AND METHODS OF  
CONTROLLING THEM

COMBINED  
CERTIFICATE UNDER  
37 C.F.R. § 3.73(b)  
and  
POWER OF ATTORNEY

Commissioner for Patents  
Alexandria, VA 22313

**CERTIFICATE UNDER 37 C.F.R. § 3.73(b)**

**CORNING INCORPORATED**, a New York corporation, certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of an assignment from the inventor(s) of the patent application identified above. A true copy of the unrecorded Assignment is attached hereto.

The undersigned has reviewed the above referenced assignment of the patent application identified above and, to the best of the undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned is empowered to sign this certificate on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

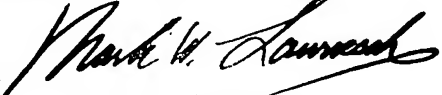
**POWER OF ATTORNEY BY ASSIGNEE**

**CORNING INCORPORATED**, the assignee of the full and exclusive right, title and interest in and to the accompanying application for United States Letters Patent entitled **OPTICAL COMMUNICATION NETWORKS AND METHODS OF CONTROLLING THEM** and executed by **DAVID COTTER; PETER HEALEY; DAVID W. SMITH; and PAUL D TOWNSEND**, on January 27, 2004; January 29, 2004; January 26, 2004; January 27, 2004, respectively, appoints the practitioners associated with the Customer Number provided below (i.e., the practitioners associated with the Intellectual Property Department, Corning Incorporated) to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected therewith. Please direct all correspondence to Ronald J. Paglierani at the address associated with that Customer Number.

**Customer Number: 22928**

Date: 7-7-04

**CORNING INCORPORATED**

By   
Mark W. Lauroesch  
Assistant Secretary

**INVENTOR'S ACKNOWLEDGEMENT,  
ASSIGNMENT DEED and UNDERTAKING**

I, Peter Healey of 31 Norbury Road, Ipswich, Suffolk, IP4 4RQ England, do hereby assert and acknowledge to Corning Incorporated, a corporation organized and existing under the laws of the State of New York, having its principal place of business at 1 Riverfront Plaza, Corning, New York 14831, United States of America (hereinafter CORNING):

1. That I made  
(b) jointly with David Cotter of 23 Moorfield Road, Woodbridge, Suffolk, IP12 4JN, Great Britain, David William Smith of Lavender Villa, Campsea Ash, Woodbridge, Suffolk, IP13 0PG, Great Britain and Paul David Townsend of 2 Berryfield, Classes Lake, Ovens, County Cork, Ireland

an invention or a series of related inventions (hereinafter "said invention") relating to Optical Communication Networks and Methods of Controlling them which is the subject of a patent application made to the European Patent Office on 31 January 2003 and having the application number 03 250 617.2 (hereinafter "said patent application")

2. That I was at the time said invention was made employed by Corning Limited, a British Company having its registered office at Wear Glass Works, Sunderland, SR4 6EJ a wholly-owned subsidiary of CORNING (hereinafter "CL"), and that I was working in the group known as "Corning Research Centre" at CL's facility at Martlesham Heath, Ipswich, ~~Surrey~~ <sup>Suffolk</sup> and that said invention was made

either

(a) in the course of my normal duties in circumstances such that an invention might reasonably be expected to result from carrying out of those duties;

or

(b) in the course of duties falling outside my normal duties but specifically assigned to me in circumstances such that an invention might reasonably be expected to result from the carrying out of those duties.

or

(c) in the course of my duties and because of the nature of those duties and the particular responsibilities arising from them I had a special obligation to further the commercial interests of my employer's undertaking.

[optionally one or two – but not all three – of (a), (b) and (c) may be deleted if they plainly do not apply]

*Peter Healey*  
*29 January 2004*

3. That I have been informed of an Agreement dated the 14th day of February 2000 between CORNING and CL which provides, *inter alia*, that all patents, applications for patents, and inventions which are conceived and/or reduced to practice in a Development Program under that Agreement by CL and /or its employees, either individually, or jointly with CORNING and/or its employees shall belong to CORNING, and am informed and believe that my invention was made in the course of such a Development Program.

4 That said invention and said patent application accordingly belong according to English law (including Section 39 of the Patents Act 1977) to CORNING

FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which is hereby acknowledged, I hereby sell, assign and transfer unto CORNING, as assignee, and unto its successors, assigns and legal representatives, any and all right, title and interest that I may still have in said invention, for the United States of America and all other countries, and all Patents or other rights of like nature that may be granted therefor; and I request that any and all patents and other rights for said invention be issued to CORNING, its successors, assigns and legal representatives, or to such nominees as CORNING may designate.

I UNDERTAKE that, when requested, I will, without charge to CORNING and at CORNING's expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing and maintaining patents or other rights of like nature for said invention in any and all countries and for vesting title thereto in CORNING, its successors, assigns and legal representatives or nominees, for obtaining in respect of said invention any rights arising under the International Convention for the Protection of Industrial Property, the Patent Co-operation Treaty or any other International Agreement or Treaty whatsoever, and generally for giving effect to this Acknowledgement, Assignment and Undertaking.

I hereby CONSENT that a copy of this document shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of CORNING, or its successors, assigns and legal representatives or nominees to the benefit of said invention and of this Acknowledgement, Assignment and Undertaking.

I COVENANT with CORNING, its successors, assigns and legal representatives or nominees, that the rights and property herein conveyed are free and clear of any encumbrance, and that I have full right to convey the same as herein expressed.

I AGREE that this Acknowledgement, Assignment and Undertaking shall be construed according to the laws of England and that the English Courts shall have exclusive jurisdiction over it.

SIGNED AS A DEED and delivered this 29 day of January 2004

To ensure full effect in respect of the US, both the inventors and the witnesses are requested to sign with at least one forename in full plus a "middle" initial and surname. If in doubt, sign your whole name in full.

Peter Healey  
Peter Healey

in the presence of

Edmund S R Sikora  
[signature of first witness]

Full name of first witness: EDMUND SERGIO ROBERT SIKORA.

Witness' address: ASHLYN, ASHBOCKING ROAD  
SWILLAND, IPSWICH, SUFFOLK IP6 9LT UK

and of

David J. McCartney  
[signature of second witness]

Full name of witness: DAVID JOHN MCCARTNEY

Witness' address: 5, SOUTH CLOSE, IPSWICH. SUFFOLK. UK  
IP4 2TH.

note: the witnesses do not need special qualifications, but should NOT be members of the inventor's family, senior Corning employees or the inventor's supervisor or manager, nor other inventors of the invention. Witnesses who are not Corning employees are preferred.

**INVENTOR'S ACKNOWLEDGEMENT,  
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FOR GOOD AND VALUABLE CONSIDERATION, the receipt and sufficiency of which is hereby acknowledged, I hereby sell, assign and transfer unto CORNING, as assignee, and unto its successors, assigns and legal representatives, any and all right, title and interest that I may still have in said invention, for the United States of America and all other countries, and all Patents or other rights of like nature that may be granted therefor; and I request that any and all patents and other rights for said invention be issued to CORNING, its successors, assigns and legal representatives, or to such nominees as CORNING may designate.

I UNDERTAKE that, when requested, I will, without charge to CORNING and at CORNING's expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing and maintaining patents or other rights of like nature for said invention in any and all countries and for vesting title thereto in CORNING, its successors, assigns and legal representatives or nominees, for obtaining in respect of said invention any rights arising under the International Convention for the Protection of Industrial Property, the Patent Co-operation Treaty or any other International Agreement or Treaty whatsoever, and generally for giving effect to this Acknowledgement, Assignment and Undertaking.

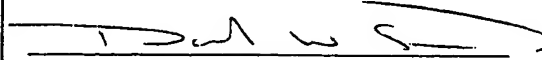
I hereby CONSENT that a copy of this document shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of CORNING, or its successors, assigns and legal representatives or nominees to the benefit of said invention and of this Acknowledgement, Assignment and Undertaking.

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To ensure full effect in respect of the US,  
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requested to sign with at least one forename  
in full plus a "middle" initial and surname.  
If in doubt, sign your whole name in full.

  
David William Smith

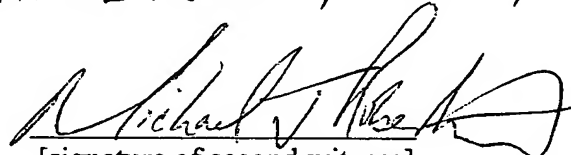
in the presence of

Alistair J. Poustie  
[signature of first witness]

Full name of first witness: AUSTAIR JAMES POUSTIE

Witness' address: 60 LATTICE AVENUE, IPSWICH, IP4 5LL, UK

and of

  
[signature of second witness]

Full name of witness: MICHAEL JAMES ROBERTSON

Witness' address: 33 COTSWOLD AVENUE, IPSWICH IP1 4LJ, UK

note: the witnesses do not need special qualifications, but should NOT be members of the inventor's family, senior Corning employees or the Inventor's supervisor or manager, nor other inventors of the invention. Witnesses who are not Corning employees are preferred.

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me David  
Townsend  
27th January  
2004



3. That I have been informed of an Agreement dated the 14th day of February 2000 between CORNING and CL which provides, *inter alia*, that all patents, applications for patents, and inventions which are conceived and/or reduced to practice in a Development Program under that Agreement by CL and /or its employees, either individually, or jointly with CORNING and/or its employees shall belong to CORNING, and am informed and believe that my invention was made in the course of such a Development Program.

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SIGNED AS A DEED and delivered this 27<sup>th</sup> day of JANUARY 2004

To ensure full effect in respect of the US, both the inventors and the witnesses are requested to sign with at least one forename in full plus a "middle" initial and surname. If in doubt, sign your whole name in full.

Paul David Townsend

Paul David Townsend

in the presence of

Giuseppe Talli  
[signature of first witness]

Full name of first witness: GIUSEPPE TALLI

Witness' address: 42 CASTLEWITHE APTS.  
WESTERN ROAD  
CORK, IRELAND

and of

Martina Annette Connolly  
[signature of second witness]

Full name of witness: MARTINA ANNETTE CONNOLLY

Witness' address: 7 AMBERLEY LANE, AMBERLEY, GRANGE, DOUGLAS CORK.  
Ireland.

note: the witnesses do not need special qualifications, but should NOT be members of the inventor's family, senior Corning employees or the inventor's supervisor or manager, nor other inventors of the invention. Witnesses who are not Corning employees are preferred.